

L 2939-66 EWT(m)/EPF(c)/ENP(j)/I/EWP(t)/EWP(b) JD/WW/WB/RM

ACCESSION NR: AP5024386

UR/0286/65/000/015/0068/0068
620.197.3

AUTHOR: ^{44.55}Shekhter, Yu. N.; ^{44.55}Vaynshtok, V. V.; ^{44.55}Dol'berg, A. L.; ^{44.55}Kalashnikov, V. P.;
^{44.55}Poddubnyy, V. N.; ^{44.55}Goryacheva, V. I.; ^{44.55}Rozvadovskaya, I. N.; ^{44.55}Levitin, M. K.

TITLE: Preparative method for corrosion inhibitors for metals. Class 23,
No. 173366 ¹⁵

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 68

TOPIC TAGS: ^{44.55}corrosion inhibitor ¹⁵

ABSTRACT: An Author Certificate has been issued for a preparative method for corrosion inhibitors for metals which involves petroleum product nitration. To increase the inhibitor effectiveness, to lower its cost, and to widen the range of available inhibitors, petrolatum, or oxidized petrolatum, or pyro polymers, or a mixture thereof are nitrated. [SM]

ASSOCIATION: none

SUBMITTED: 09Mar63
NO REF SOV: 000
Card 1/1 ^{PC}

ENCL: 00
OTHER: 000

SUB CODE: MM
ATD PRESS: 4110

SHEKSTER, Yu.N.; YEVSTRATOVA, N.I.; KALASHNIKOV, V.P.; NIKOLAYEVA, V.M.;
YERMILOV, A.S.

Lubricating and cooling fluids with molybdenum disulfide. Stan 1
instr. 36 no. 12:13-15 D '65 (MIRA 19:1)

L 01303-67 ENT(m)/ENP(j)/ENP(t)/ETI IJP(c) JD/WB/RM
ACC NR: AP6003433 (A) SOURCE CODE: UR/0065/66/000/001/0043/005

AUTHOR: Dol'berg, A. L.; Vaynshtok, V. V.; Kreyn, S. E.; Shekhter, Yu. N.;
Poddubnyy, V. N. 42
B

ORG: none

TITLE: Production of nitrated petrolatum-base corrosion inhibitors

SOURCE: Khimiya i tekhnologiya topliv i masel, no.1, 1966, 48-51

TOPIC TAGS: petroleum product, corrosion inhibitor, steel, corrosion protection

ABSTRACT: Ozocerite and petrolatum-base corrosion inhibitors are now made by oxidation with air at 130-160C in the presence of a catalyst. The preparation takes 10-24 hr. A less time-consuming method was offered for producing a corrosion inhibitor from petrolatum. It consisted of treating petrolatum with a 62% HNO₃ solution, neutralizing the reaction product with a 20% aqueous solution of NaOH without removal of the spent HNO₃, and dehydration. The nitrated and neutralized petrolatum was completely soluble in oil and insoluble in water. The test on the corrosion-protective properties of the 5% solution of nitrated petrolatum in transformer oil made with St.45 steel proved that, as a corrosion inhibitor, the product was not inferior, if not superior, to the oxidized petrolatum. The optimal consumption of HNO₃ was determined as 10%. Nitrating petrolatum with large amounts of HNO₃ (≥30%) contributed in some cases to its corrosive properties.

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UDC: 665.521.5 : 66.095.81 : 620.193

ACC NR: NP8003433

with respect to the process. The treatment of oxidized petrolatum with small amounts (5-15%) of 62% HNO_3 with neutralization by NaOH and dehydration yielded an inhibitor soluble both in water and in oils. This permitted it to be used in the form of either oil or water solutions. The most effective corrosion inhibitors for the steel was the oxidized petrolatum, having an acid number of 30-45 after treatment with 15% addition of the 62% HNO_3 solution. The quality of the inhibitors depended greatly on the purity of the final product. For this purpose the nitrated oxidized petrolatum was purified of spent HNO_3 by settling and treated with NaOH to a neutral reaction. The product of nitration of oxidized petrolatum was tested as a corrosion inhibitor for ferrous and nonferrous metals (Al, duralumin, Cu, Pb, Sn, bronze, Mg alloys, steels, solder, cast iron, and in combinations of metal-wood and metal-rubber). In all cases it provided for long-lasting and reliable protection. The nitration of oxidized petrolatum from the Kazan NPZ was made in a pilot plant installation with 62% HNO_3 (consumption 15%) at 70-90C for 4 hr without settling out any of the spent HNO_3 . The nitrated product had an acid number of 90 mg KOH. The final neutralized inhibitor had an ash content of 7.5%, an alkalinity by phenolphthalein of 1.2 mg KOH and by bromophenol blue of 65.7 mg KOH, a water content of 1.6% Dean and Stark, and good protective properties of the 5% solution in transformer oil for St.45 steel: more than 30 days in water before the appearance of corrosion nuclei. The nitrated petrolatum and the nitration of oxidized petrolatum can be made in the same simple apparatus which is used for the nitration of mineral oils. Orig. art. has: 5 tables.

SUB CODE: 11,13/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 002

Card 2/2

L 22482-66 EWT(m)/T/EWP(t) LJP(c) JD/WB/DJ
 ACC NR: AP6007930 (A) SOURCE CODE: UR/0065/66/000/003/0036/0040

AUTHOR: Shekhter, Yu. N.

ORG: none

TITLE: The mechanism of low solubility corrosion inhibitors f

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1966, 36-40

TOPIC TAGS: corrosion inhibitor, corrosion, corrosion resistance, anticorrosion additive

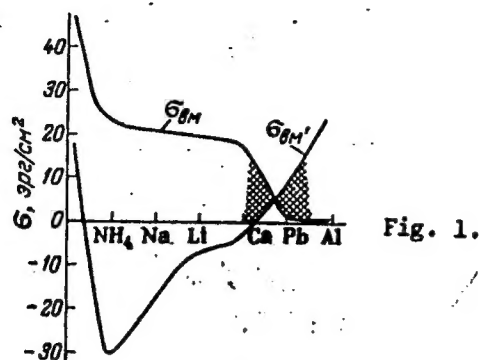
ABSTRACT: Ammonium, sodium, lithium, calcium, lead and aluminum sulfonates, oxidized petrolatum, Na-salt and Al-salt containing nitrated oils, and SK-11, NG-104, and PMS-Ya additives served as AS-6 oil soluble inhibitors. Corrosion experiments were conducted at 20-40°C by immersing a lubricated metal sample in 20-60°C water using a G-4 thermohumidifying chamber. The corrosion inhibition mechanism was studied in terms of surface tensions at water-oil interface σ_{BM} and water-oil film interface σ_{BM}'' . The changes in surface tension of AS-6 oil (at its boundary with water) caused by various oil soluble metal sulfonate additives are shown in figure 1. The calcium, aluminum, and lead sulfonates and nitroalkylaromatic compounds with moderate molecular weights were found to be the most effective corrosion inhibitors since they give very small values of $\sigma_{BM}'' - \sigma_{BM}$. Orig. art. has: 5 figures, 1 table, 10 formulas.

UDC: 665.521:620.193

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L 22482-66

ACC NR: AP6007930



SUB CODE: 13

SUBM DATE: 00/

ORIG REF: 010/

OTH REF: 000

Card 2/2 BK

L 16049-66 EMT(m)/EWP(t) JD/WM/JG

ACC NR: AP5027376

SOURCE CODE: UR/0371/65/000/005/0003/0014

AUTHOR: Branover, G. G. — Branovers, G.; Liyelausis, O. A. — Lielausis, O.; Tsinober, A. B. — Ginobers, A.; Shekhter, Ye Yu. — Sekters, J. 64

ORG: Physics Institute, AN Latv.SSR. (Institut fiziki AN Latv.SSR) B

TITLE: Hydraulic theory of electromagnetic batcher

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 5, 1965, 3-14

TOPIC TAGS: hydrodynamics, metal casting, electromagnetic effect, liquid metal, differential equation

ABSTRACT: The problem of liquid metal dosing occurs in connection with automatization of casting processes. The author suggests some new methods of batching based on mechanical displacement and pneumatic and electromagnetic effects

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L 16049-66

ACC NR: AP5027376

on metals. His methods are based on some known results in the hydrodynamics of an electromagnetic batcher. The author shows that nonstationary processes in the batcher can be satisfactorily described by means of differential equations corresponding to the various stages which comprise the entire cycle of dosing. These differential equations are solved stage by stage. If formulas of hydraulic duct-flow are used for expressing energy losses then the solutions of the corresponding differential equation can be carried to completion. These solutions are obtained within an approximation yielding the dependence $\theta = \theta(N)$ where is the time during which the N-th numbered dose is supplied by the pump of the batcher. Orig. art. has: 8 figures, 1 table and 20 formulas.

SUB CODE: 13,12/ SUBM DATE: 02Apr65/ ORIG REF: 011

Card 2/2

AUTHORS: Foygel', L. A., Engineer, Shekhter, Z. Kh., Engineer, Elyukim, S. V., Engineer SOV/19-59-4-7/18

TITLE: Investigation of the Dependence of the Elastic Properties of Helical Tubular Springs Upon Geometrical Configuration
(Issledovaniye zavisimosti uprugikh kharakteristik vitykh trubchatykh pruzhin ot geometricheskikh razmerov)

PERIODICAL: Priborostroyeniye, 1959, Nr 4, pp 15-17 (USSR)

ABSTRACT: The authors investigated the elastic properties of helical tubular springs as dependent upon the wall thickness and the pitch. The springs all had the same profile and were made of stainless steel 4 Kh 13. The methods of measuring the thickness and the pitch of the springs are discussed. The sensitivity is defined as the ratio of twisting angle and measured pressure: $\alpha = \varphi/P$. In a figure a total view of the device for the measurement of the twisting angle of the springs is presented. This device cannot only be used for the examination of test springs, but may also be employed in the checking of mass-produced springs. More than 100 springs with differing pitch and thickness were tested. In five diagrams the sensitivity versus pitch

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SOV/119-59-4-7/18
Investigation of the Dependence of the Elastic Properties of Helical Tubular
Springs Upon Geometrical Configuration

function is given for constant thickness. The curves all exhibit the same character. It appears that the sensitivity exhibits a maximum for certain pitch. The deviation of the experimental results is much greater than would be expected due to the propagation of the error in measuring the pressure and the twisting angle. It is assumed that it must be ascribed to different wall thickness, to irregular pitch and to certain irregularities in the shape of the spring. The diagrams mentioned provided the information required for a determination of the quantities which must be known for the investigation and the production of springs. The characteristics of such springs are in general non-linear. As yet, not all of the causes for this non-linearity are known, the main origin, however, being considered the dependence of the sensitivity upon the pitch. Finally the degree of non-linearity is calculated under simplifying assumptions. The results of the calculations give a satisfactory agreement with the experimental results. There are 11 figures and 1 table.

Card 2/2

ACC NR: AP6005347

SOURCE CODE: UR/0413/66/000/001/0092/0092

AUTHORS: Baryshnikov, G. P.; Gushchin, N. L.; Kovalenko, Yu. V.; Lerner, B. L.;
Sarkisov, S. S.; Shekhter, Z. Kh.; Kul'gin, I. Ye.

29
E

ORG: none

TITLE: Device for automatic processing of primary seismic data. Class 42, No. 177639

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, 1, 1966, 92

TOPIC TAGS: seismograph, automatic data processing

ABSTRACT: This Author Certificate presents a device for automatic processing of primary seismic data. The device consists of drums for recording seismograms, magnetic heads, and a magnetic head transport unit. To simplify the design and to increase the efficiency of seismogram processing, the magnetic head transport unit is in the form of a cam system connected to a stop drive and mounted on a common shaft (see Fig. 1). The shaft is turned quasi-discretely at the end of each rotation of the recording drum. To vary the center of the summation base line, the middle cam of the system is mounted opposite the magnetic head selected as the center of the summation base line.

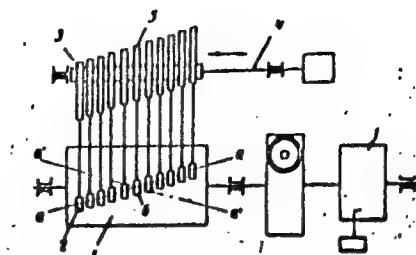
UDC: 550.340.8

Card 1/2

L 112068-44

ACC NR: AP6005347

Fig. 1. 1 - drums for recording seismograms;
2 - magnetic heads; 3 - cam system;
4 - shaft; 5 - middle cam of system;
6 - magnetic head selected as center
of summation base line; a-a' - summa-
tion base line



Orig. art. has: 1 figure.

SUB CODE: 08/ SUBM DATE: 24Sep64

Card 2/2 af

ACC NR: AP6005351

SOURCE CODE: UR/0413/66/000/001/0093/0093

AUTHORS: Lerner, B. L.; Shekhter, Z. Kh.; Yankovskiy, I. I.

ORG: none

31
D
TITLE: Device for inserting kinematic corrections during rerecording of seismograms. Class 42, No. 177643 [announced by Special Construction Bureau of Seismic Instrument Manufacture of the "Nizhnevolgoneftegeofizika" Trust (Spetsial'noye konstruktorskoye byuro seysmicheskogo priborostroyeniya tresta "Nizhnevolgoneftegeofizika")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 93

TOPIC TAGS: seismograph, magnetic drum

ABSTRACT: This Author Certificate presents a device for inserting kinematic corrections during rerecording of seismograms. It consists of a magnetic drum, an information carrier, and a readout head. To simplify the production of the device, an electric stepping motor is mechanically coupled to the readout head to insure its quasi-discrete motion (see Fig. 1). The motor is supplied with a pulsed voltage with a programmed frequency of pulse sequence.

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UDC: 550.340.8

4000-66
ACC NR: AP6005351

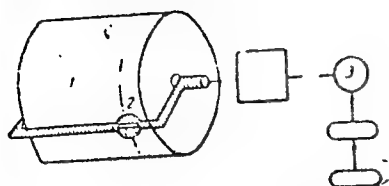


Fig. 1. 1 - magnetic drum with
information carrier; 2 - readout
head; 3 - electric stepping motor

Orig. art. has: 1 diagram.

SUB CODE: 08/ SUBM DATE: 25Sep64

Card 2/2

S/080/62/035/002/007/022
D235/D302

AUTHORS: Nizhnik, A. T. and Shekhter, Z. V.

TITLE: Study of the effect of certain impurities on the cementation of gallium with sodium amalgam

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 295-300

TEXT: Dependence of the rate of separation of Ga into the amalgam on the temperature, rate of stirring and on alkali concentration was first studied. The degree of cementation increased with an increase in the speed of stirring and with rising temperature; the optimum conditions were a temperature of 50°C, a speed of stirring of 400 rpm and an alkali concentration of 50 g/l. In order to investigate the effect of impurities small amounts of Zn, Al, As, Sb and Mo were added to a solution containing 50 g NaOH and 0.4 g Ga per liter. Under the optimum conditions 10 ml of 1% Na amalgam were added to 50 ml of solution and cementation was allowed to proceed for 90 minutes. Al and As⁵⁺ were not reduced by sodium amalgam; zinc, like Ga, was reduced by the amalgam to the metal and easily

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Study of the effect ..

S/O-0/62/035/002/007/022
D235/D302

dissolved in the mercury, As^{3+} and Sb^{3+} were reduced to the element but did not dissolve in mercury and in the case of As , AsH_3 was evolved. Mo and V were energetically reduced to the lower valency state. The consumption of sodium amalgam during the cementation of gallium in the presence of the studied additions increases in the series $Zn < Sb^{3+} < Mo^{4+} < As^{3+} < V^{5+}$. The presence of such elements does not effect the degree of Ga cementation and only in the presence of V does the rate of cementation decrease by 10 - 20%. The reduction of V to a lower valency state is accompanied by a sharp increase in the breakdown of the sodium amalgam, but the authors established that cementation of gallium is possible even in the presence of large quantities of vanadium provided there is an excess of the amalgam. There are 2 figures, 2 tables and 16 references: 8 Soviet-bloc and 8 non-Soviet-bloc. The references to the English language publications read as follows: P. de la Breteque, C. R., 243, 14, 958, (1956); R. MacMullen, Chem. Eng. Progr., 46, 9, 20, (1950); A. Angel and T. Lunden, Electroch. Soc., 99, 11, 435 (1952).

SUBMITTED: October 24, 1960

Card 2/2

ACCESSION NR: AP4032494

S/C030/64/037/004/0742/0745

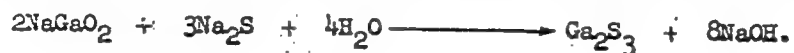
AUTHOR: Nizhnik, A. T.; Shekhter, Z. V.

TITLE: Fraction of gallium from alkaline solutions with the aid of sulfides.

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 4, 1964, 742-745

TOPIC TAGS: gallium, extraction, sulfide precipitation, gallate ion, pentavalent vanadium, impurity, oxidizing agent removal

ABSTRACT: The possibility was investigated of extracting gallium from alkaline zinc-containing solutions in the sulfide precipitate. Determinations of the amount of gallium in the sulfide precipitate (with ZnS) two hours after precipitation established that 92% of the gallium precipitates from the alkaline solution containing up to 40 gm/l of free NaOH. On increasing the NaOH to 110 gm/l the amount of gallium precipitated drops linearly to 15%, probably due to the formation of gallate ion according to the reverse reaction:



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ACCESSION NR: AP4032494

The amount of gallium in the sulfide increases with increasing amount of zinc up to 25 times in proportion to the gallium. With a greater amount of zinc the amount of gallium in the precipitate remains constant at about 90%. The presence of aluminum (up to 500 times the amount of gallium) has no effect on the sulfide precipitation of gallium. Arsenic (up to 15 times) has little effect. The presence of pentavalent vanadium reduces the yield of gallium in the precipitate, hence it and similar oxidizing agents should be removed, e.g., by reduction with amalgam or excess Na_2S , prior to the gallium extraction. Orig. art. has: 2 tables and 2 figures.

ASSOCIATION: None

SUBMITTED: 17Apr62

DATE ACQ: 11May64

ENCL: 00

SUB CODE: GC,MM

NO REF SOV: 011

OTHER: 003

Cord 2/2

GUREVICH, D.Ye.; SHEKHTERMAN, A.S.

Improving the methods for stressing reinforcements. *Gidrotekhnika*
no.1:100-102 '61. (MIRA 15:3)
(Concrete reinforcements)

SHUL'GA, M.S. (g. Chernovtsy); SIDORYCHEVA, A.G.; SVIRIDOV, V.I.
(Rostov-na-Donu); SHEKHTERMAN, M.E. (g. Tiraspol');
ZHIGALOV, K.S. (pos. Bilimbay Sverdlovskoy oblasti); SERYAKOV, A.A.
(Murom); SAKEVICH, N.M. (Vitebsk); KAZANTSEV, I.I.

Readers suggestions. Fiz. v shkole 21 no.6:80-81 N-D '61.
(MIRA 14:12)

1. Turochakskaya srednyaya shkola Gorno-Altayskoy avtonomnoy
oblasti (for Kazantsev).
(Physics--Experiments)

VOLIK, A.G., inzh.; SHEKHTERMAN, Sh.Sh., inzh.

Device for cutting the heads of piles. Transp. stroi. 14
no.10:21-23 0 '64. (MIRA 18:3)

SHEKHTMAN, A.

Faults of the "KVN-49" television receiver. Radio no.9:41 S
'62. (MIRA 15:9)

(Television—Receivers and reception)

SHEKHTMAN, A.

"Avangard" television receiver with a 35LK2B picture tube.
Radio no.4:26-27, 30 Ap '62. (MIRA 15:4)
(Television--Receivers and reception)

SHEKHTMAN, A.B., vrach

Dynamics of the aldolase test in Botkin's disease. Azerb.med.
zhur. no.6:57-61 Je '59. (MIRA 12:9)
(HEPATITIS, INFECTIOUS) (ALDOOLASE)

SHEKHMAN, A.B.

Dynamics of changes in serum protein and its fractions in infectious
hepatitis. Azerb. med. zhur. no. 5:61-67 My '61. (MIRA 14:4)
(BLOOD PROTEINS) (HEPATITIS, INFECTIOUS)

KHIMCHENKO, N.V.; GOZAK, V.P.; SHEKHTMAN, A.G.

Ultrasonic flaw detection in high-strength cast iron. Lit.
proizv. no.8:9-13 Ag '61. (MIRA 14:7)
(Cast iron—Testing)
(Ultrasonic testing)

S/145/62/000/001/008/010
D262/D308

AUTHOR: Shekhtman, A.G., Candidate of Technical Sciences
TITLE: Modern requirements for free-piston Diesel compressors
for combined power plants

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashino-
stroyeniye, no. 1, 1962, 105 - 113

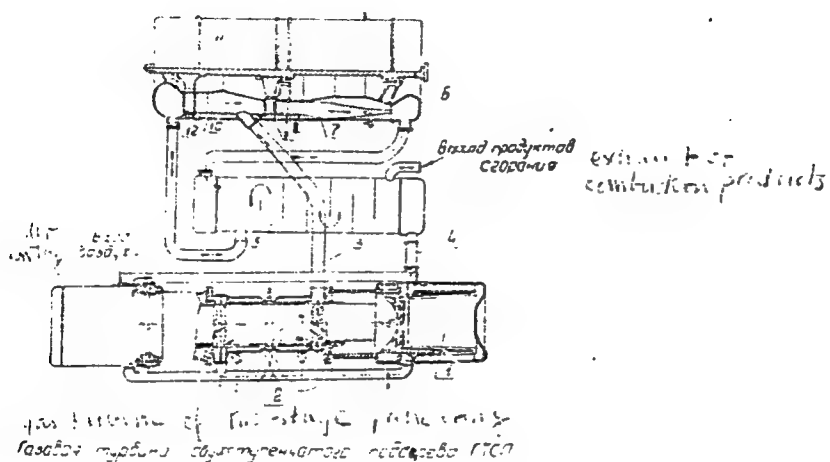
TEXT: An improved design of the free-piston gas generator for ob-
taining supercharging pressure of 6 atm. at 700°C is proposed. The
arrangement as shown in Fig. 1, (1-compression cylinder, 2 - diesel
cylinder, 3 and 4 - manifolds, 5 - regenerator, 6 - receiver, 7 -
combustion chamber, 8 and 9 - turbine first stage, 10 - mixing cham-
ber, 11 and 12 - turbine second stage) and the working process are
described in detail. Piston gas distributors, similar to those used
for two-stroke internal combustion engines are recommended in place
of automatic valves. A typical design of the distributor and its ad-
vantages over automatic valves are also described. There are 4 fi-
gures.

SUBMITTED: September 25, 1961
Card 1/2

Modern requirements for free-piston ...

S/145/62/000/001/008/010
D262/D308

Fig. 1.



Card 2/2

CHERNITMAN, A.G., Inzh.

Hardening of large pinion gears by high-frequency currents.
Khim.mashinostr. no.3:39-40 My-Je '63. (MIRA 16:11)

SHEKHTMAN, Aron Isaakovich; ERLIKH, Moisey Davidovich; PROK, Boris
Mikhaylovich; TSARENKO, A.P., red.; KHITROV, P.A., tekhn.red.

[Promoting the efficiency of freight transportation; from the
practice of economic councils and railroads] Opyt ratsionalizatsii perevozok gruzov; iz praktiki sovmarkhozov i zheleznykh dorog. Moskva, Gos.transp.zhel-dor.isd-vo, 1959. 55 p.

(MIRA 12:7)

(Freight and freightage)

SHEKHTMAN, A. M.

Shekhtman, A. M. -- "Shaping Cams with a Roller Lever Cam Follower." Min
Higher Education USSR, Moscow Order of Labor Red Banner Higher
Technical School imeni Bauman, Moscow, 1955 (Dissertation for the
Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun 55, pp 87-104

SAKOVLOV, Georgiy Pavlovich; SHEKHTMAN, A.M., ed. red.; NOLOVA,
M.N., red.

[Simple repair of television receivers; how to locate and
replace faulty tubes] Prosteishii remont televizorov; kak
nakhodit' i zameniat' neispravnye lampy. Izd.2., dop.
Moskva, Sviaz', 1965. 188 p. (Biblioteka "Televizionnyi
priem," no.18) (MIRA 18:6)

SHEKHTMAN, A.N.

Salinity of the Sea of Azov water in connection with the change
of its water balance. Meteor. i gidrol no. 8:14-19 Ag '56.
(Azov, Sea of--Salinity) (MLRA 9:11)

SIROTCV, K.M.; SHEKHTMAN, A.N.

Evaluation of visual observations on waves. Trudy NIIAK
no.12:57-65 '61.

(MIRA 14:10)

(Waves)

SHEKHTMAN, A.N.

Some characteristics of wind conditions in the Caspian Sea.
Trudy NIIAK no.20:30-75 '63. (MIRA 16:12)

SHEKHTMAN, A.N.

Climatological maps of the Norwegian and Greenland Seas. Probl. Sov.
no.7:232-239 '63. (MIRA 17:2)

L 00815-67 EWT(1) GW

ACC NR: AT6013758

(N) SOURCE CODE: UR/2667/65/000/033/0177/0185

AUTHOR: Shekhtman, A. N.

ORG: none

TITLE: Climatic zoning of the Okhotsk Sea

SOURCE: Moscow. Nauchno-issledovatel'skiy Institut aeroklimatologii. Trudy, no. 33, 1965.
Voprosy klimatologii (Problems in climatology), 177-185

TOPIC TAGS: climate zone, climatology, climate condition

ABSTRACT: Based on weather conditions and geomorphological features the Okhotsk Sea is divided into 12 climatic regions, and the adjoining part of the Pacific Ocean is divided into three regions. The greatest depth, value of the heat balance, mean annual air temperature, duration of the ice-covered period with an indication of the probability of the development of ice, and the characteristic features of the climate are given for each of the 15 regions. The principle of climatic zoning, which was based on the degree of isolation and contiguity with adjacent basins, character of water and air circulation, sea depth, effect of coastal areas, annual heat balance of the sea surface, duration and intensity of the ice cover and mean annual air temperature, is too general and approximate since quantitative criteria are not

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00814-0

ACC NR: AT6013758

established at the boundaries of contiguous regions. The approximate nature of the zoning is also due to the fact that the boundaries are drawn in rectangular coordinates. Under conditions of any sea, but in particular for the Okhotsk Sea, coastal regions, channels, and regions where warm and cold currents converge are characterized by large gradients of many hydro-meteorological elements, therefore coastal climatic regions are appreciably smaller than climatic regions of the open sea. Orig. art. has: 1 table and 1 figure.

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 002

Card 2/2 ^{fv}

L 32727-66 EWT(1)/FCC GW

ACC NR: AP6010816

(N)

SOURCE CODE: UR/0213/65/005/006/1110/1112

58
B

AUTHOR: Shekhtman, A. N.

ORG: Scientific-Research Institute of Aeroclimatology (Nauchno-issledovatel'skiy institut aeroklimatologii)

TITLE: Machine processing of hydrometeorological information directly on the ship

SOURCE: Okeanologiya, v. 5, no. 6, 1965, 1110-1112

TOPIC TAGS: computer application, hydrometeorology, data processing, research ship, research ship instrumentation

ABSTRACT: In connection with the enormous increase in the number of expeditionary observations which are used and analyzed during an investigation, the author states that it is necessary to change over to automation of the recording and accumulation of hydro-meteorological data in the form of punched cards. The author proposes that research vessels be outfitted with a manual puncher, verifier, sorter, and a tabulator in order to punch cards, compile tables, analyze, and generalize the data of the observations while at sea. This set of machines can process 100,000 observations in 100 days, which is the usual duration of cruises by large research vessels. At present during such cruises about

UDC: 551.46.06:551.46.073:681.142.7

Card 1/2

18712-60

0

CC NR: AP6010816

10,000 observations are collected, which are punched and for which there are verified copies of the punched cards. Hydrochemical and actinometric observations are being punched, and the problem of the machine processing of observations of the current which sometimes amount to several thousand measurements is being examined. Thus, soon, during a single cruise 30 to 35 thousand observations will be collected which can be processed by machine, but even then the computer equipment on the ships will be used at 30% of capacity. An evaluation of the efficiency of these machines for increasing the productivity of labor of the technical staff and scientific workers of large expeditions shows that there are great potential savings in means especially since the expenditures for housing a worker on an expedition is appreciably higher than on shore. However, if the productivity of labor as a result of using machines increases by only 40% these machines will pay for themselves in 1 to 2 years. Many research vessels have sufficient room for installing computers and for storing punched cards and are manned by highly qualified mechanics and electricians who could be trained to service these machines. The six largest research vessels in the Soviet Union should be considered as floating observatories on which the flow of information is ever increasing, therefore computers must be placed on these ships in order to utilize more effectively the data of the observations from the expeditionary investigations. Orig. art. has: 1 figure.

SUB CODE: 08,09 / SUBM DATE: 18Feb65 / ORIG REF: 003 / OTH REF: 002

Card 2/2 JS

YEKEL'CHIK, Moisey Solomonovich; KAMILIN, Natan Semenovich;
SOSNOV, Rudol'f L'vovich; SIBKHEIM, Aron Yudkovich;
KAZANSKIY, B.M., nauchn. red.; LEYEL, B.P., red.;
KALYUGIN, V.I., red.; USPENSKIY, V.V., red.; SHASS,
M.Ye., red.; GERASIMOVA, G.S., red.

[Improving the economic work of contracting organiza-
tions] Sovershenstvovanie ekonomicheskoi raboty podriad-
nykh organizatsii. Moskva, Strojizdat, 1964. 96 p.
(MIRA 18:1)

SHEKHTMAN, B.A., dotsent; GUSEYNOV, M.M., assistant; SHIROYAN, N.M., vrach

Labor hygiene and sanitation in the production of catalyzers for the cracking of petroleum. Azerb.med.zhur. no.1:82-85 Ja '60.

(MIRA 13:5)

1. Iz kafedry gigiyeny truda Azgosmedinstituta imeni N. Narimanova.
2. Bakinskaya sanitarno-epidemiologicheskaya stantsiya (for Shiroyan).

(SULFURIC ACID --PHYSIOLOGICAL EFFECT)

ABIYEV, G.S., dotsent, nauchnyy sotrudnik; ALLAKHVERDIBEKOV, G.B., dotsent, nauchnyy sotrudnik; SHEKHTMAN, B.A., dotsent, nauchnyy sotrudnik; AMIROV, R.O., kand. med. nauk, nauchnyy sotrudnik; SAMEDOV, I.G., Dotsent; ALIYEV, E.K.; prof. nauchnyy sotrudnik

Fundamental work. Azerb. med. zhur. no.6:46-48 Je '62.

(MIRA 17:8)

1. Prorektor po nauchnoy rabote Azerbaydzhanskogo gosudarstvennogo meditsinskogo instituta imeni Narimanova (for Abiyev). 2. Zaveduyushchiy kafedroy farmakologii Azerbaydzhanskogo gosudarstvennogo meditsinskogo instituta imeni Narimanova (for Allahverdibekov). 3. Zaveduyushchiy kafedroy lekarstvennykh form i galenovykh preparatov Azerbaydzhanskogo gosudarstvennogo meditsinskogo instituta imeni Narimanova (for Aliyev). 4. Zaveduyushchiy kafedroy gigiyeny truda Azerbaydzhanskogo gosudarstvennogo meditsinskogo instituta imeni Narimanova (for Shekhtman). 5. Direktor Instituta gigiyeny truda i professional'nykh zabolevaniy Ministerstva zdravookhraneniya Azerbaydzhanskoy SSR (for Samedov).

SHEKHTMAN, B. I.,

UKRAINSKIY NAUCHNO-ISSLEDOVATEL'SKIY INSTITUT SOORUZHENIY

ISSLEDOVANIYE PROCHNOSTI KLADKI SHLAKOTSETONNYKH KAMNEY. PAGE 36

SO: SBORNIK ANNOTATSIY NAUCHNO-ISSLEDOVATEL'SKIKH RABOT PO STROITEL'STVU,
MOSCOW, 1951

SHEKHTMAN, B. I.

SHEKHTMAN, B. I.: "The effect of certain production factors on the quality of winter paving with finished cinder-concrete block". Kiev, 1955. Min Higher Education USSR. Kiev Construction Engineering Inst. (Dissertations for the Degree of Candidate of Technical Sciences.)

So: Knizhnaya letopia' No. 49, 3 December 1955. Moscow.

SHEKHTMAN, G.A., kapitan meditsinskoy sluzhby

Controlling the vitamin A supply for the body. Voen.-med.zhur.
no.12:63-65 '59. (MIRA 14:1)

(VITAMINS-A)

SHEKHTMAN, G.A., kapitan meditsinskoy sluzhby

- Control of the vitamin C supply required by the body. Voenn.-med.
zhur. no. 1:81-83 Ja '60. (MIRA 14:2)
(ASCORBIC ACID)

SHEKHTMAN, G.A., kapitan meditsinskoy sluzhby

Importance of continuous additions of vitamin C to food in the
military unit. Voен.-med.zhur. no.3:46-49 Mr '61. (MIRA 14:7)
(ASCORBIC ACID) (SOLDIERS--NUTRITION)

SHEKHMAN, G.A. (Arkhangel'sk)

Vitamin C supply under conditions prevailing in Archangel. .
Vop.pit. 21 no.3:52-55 My-Je '62. (MIRA 15:1C;
(ARCHANGEL--ASCORBIC ACID)

Sov/100-56-6-9/11

AUTHOR: Gel'fand, Sh. Ya., Engineer and Shekhtman, G.Ye., Engineer.

TITLE: Performance of Tower Crane BKSM-5-PU with Grab. (Rabota bashennogo krana BKSM-5-PU oborudovannogo greyferom).

PERIODICAL: Mekhanizatsiya Stroitel'stva, No 6, 1958, pp 27-29 (USSR)

ABSTRACT: Collective of the Minsk factory for tower cranes by modernising tower crane BKSM-5-P with a capacity of 1.5-5 tons produced crane BKSM-5-PU. The lay-out of the storage of material of the Vitebsk factory for reinforced concrete products and the position of the crane working there are illustrated in Figure 1. Figure 2 illustrates the scheme of the grab winch. It has a capacity of 0.5m³. Specifications and technical data of the grab are given. The grab winch (see Figure 2) consists of an electric motor, AO-51-6 an electro-magnetic brake and an "elastic clutch" of 200mm diameter, a reductor, a couple of cylindrical cogged wheels and a drum. Figure 3 illustrates the crane and Figure 4 gives a detailed illustration of the grab. Figure 5 illustrates the grab's stabilising arrangement. There are five Figures.

1. Hoists--Performance 2. Hoists--Equipment

Card 1/1

SHEKHTMAN, G. I.

1 Acetylation of unsaturated hydrocarbons. II. Acetylation of phenylacetylene and 1-heptyne by acetic anhydride in the presence of zinc chloride. V. N. Belov and G. I. Shekhtman. *Zhur. Obshch. Khim.* 21, 1501-4 (1953); *cf. C.A.* 48, 4320h. — Acetylation of alkynes with $\text{Ac}_2\text{O-ZnCl}_2$ gave Me vinyl ketones, and no acetylenic ketones. This confirms the previous hypothesis (*loc. cit.*) concerning the intermediate formation of a complex of all 3 ingredients. $\text{PhC}\equiv\text{CH}$ (35 g.) and 52 g. Ac_2O slowly treated with 23 g. dry ZnCl_2 (the temp. rose to 80°) and the mixt. heated 3 hrs. on a steam bath and steam-distd. gave some 30% unreacted hydrocarbon and 13.5 g. ketone fraction, b_p $132-5^\circ$, forming a semicarbazone, m. $180.5-1.0^\circ$ which with aq. $(\text{CO}_2\text{H})_2$ gave the pure $\text{PhC}\equiv\text{CH:CHCOMe}$, b_p $137-8^\circ$, n_D^{20} 1.5930, d_4^{20} 1.2373; oxime, m. 93° ; 2,4-dinitrophenylhydrazone, m. $104-5^\circ$. The ketone and NaOCl gave $\text{PhC}\equiv\text{CCO}_2\text{H}$, m. 138° . Similarly $\text{AmC}\equiv\text{CH}$ (76% pure) with Ac_2O and ZnCl_2 after 3 hrs. at $60-6^\circ$ gave $\text{AmC}\equiv\text{CH:CHCOMe}$, b_p $93-5^\circ$, n_D^{20} 1.4646, d_4^{20} 0.9839; semicarbazone, m. $137-8^\circ$; oxime, b_p $85-6^\circ$, n_D^{20} 1.4087. G. M. Kosolapoff

(1)

1. BELCV, V. N., RUDOL'FI, T. A., SHEKHMAN, G. Z.
2. USSR (600)
4. Acetylation
7. New data on the acetylation of unsaturated hydrocarbons with acetic anhydride in the presence of metal chlorides. Dokl. AN SSSR 88, no. 6, 1953.

9. Monthly List of Russian Accessions. Library of Congress, May 1953, Uncl.

BELOV, V.N.; SHEKHTMAN, G.Z.

Acylation of unsaturated hydrocarbons. Report No. 2: Acetylation
of monosubstituted acetylenic hydrocarbons by acetic anhydride
in the presence of metal chlorides. Trudy VNIISNDV no.2:8-9 '54.
(Hydrocarbons) (Acetylation) (Zinc chloride) (MLRA 10:7)

SHEKHTMAN, G.Z.; Prinimal uchastiye: SOLOV'YEV, B.M.

Synthesis of boroglyceride and its use in cosmetic preparations.
Masl.-zhir.prom. 28 no.4:37-39 Ap '62. (MIRA 15:5)

1. Moskovskaya fabrika "Svoboda" (for Shekhtman). 2. Zaveduyushchiy
laboratoriyey Instituta vrachebnoy kosmetiki (for Solov'yev).
(Glycerides)

PA - 3049

AUTHOR
TITLE

LARISH E., SHEKHTMAN I.
On the Introduction of Radiation into the Problems of Gas
Dynamics.

PERIODICAL

Doklady Akademii Nauk SSR 1957, Vol 113, Nr 5, pp 1010-1012
(USSR)

Reviewed: 7/1957

ABSTRACT

Received: 6/1957
The author shows that failing to take the influence exercised by radiation into account often leads to considerable inaccuracies. The present paper discusses a very simple method by means of which it is possible to take the influence of radiation into account without any changes in the equation of adiabatic motion being necessary. It is known that radiation in the case of thermodynamic equilibrium may be treated as a perfect gas with the adiabatic index $\kappa = 4/3$. The thermodynamic equations of a perfect gas with a radiation with which it is in equilibrium are explicitly written down. Equations are considerably simplified in the following two cases:

- 1) $\kappa = 4/3$
- 2) if radiation pressure can be approximated by the formula

$$p_r = (\kappa - 1) \bar{a} T \quad \kappa/(\kappa - 1)$$

CARD 1/3

PA - 3049

i.e. if the adiabatic indices of the gas and the radiation are equal. In the cases 1) and 2) the equations of adiabatic motion and the corresponding boundary conditions do not change if radiation is taken into account. Thus, the solutions for p , ρ and v (velocity) have the same form as in the case if radiation is disregarded. Differences, however, exist with respect to temperature values. With $\gamma = 4/3$ radiation exercises no influence at all upon mechanical parameters, so that it is even possible to obtain a rather good approximated solution in the case of $\gamma \neq 4/3$.

The authors then extend these general ideas to the case of a vehement explosion. Because of the high temperatures occurring on such an occasion the light pressure in the initial stage of the propagation of the shock wave must play an important part. The solutions for p , ρ and v found by L.I. SEDOV remain valid also in the case of existing radiation. Finally, temperature distribution is determined. Temperature distribution is characterized by an additional constant R^4/a and is automodellike.

CARD 2/3

On the Introduction of Radiation into the Problems of
Gas Dynamics. PA - 3049

(with 2 illustrations)

ASSOCIATION: Institute for Applied Mathematics and Institute for Nuclear
Physics of the Academy of the Roumanian People's Republic,
Bucarest.

PRESENTED BY: L.I. SEDOV, Member of the Academy.

SUBMITTED: 12.12. 1956.

CARD 3/3

SOV/56-35-1-27/59

AUTHORS: Larish, E. I. Shekhtman, I.

TITLE: The Propagation of Detonation Waves in the Presence of a Magnetic Field (Rasprostraneniye detonatsionnykh voln pri nalichii magnitnogo polya)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 35, Nr 1, pp. 203-207 (USSR)

ABSTRACT: For the investigation of the propagation of shock waves in a plasma located in a magnetic field relativistic hydrodynamical equations have already been used by several authors (e.g. Ref 1). In the present paper so-called "perpendicular" detonation waves are investigated, viz. such as are propagated in a direction which is transversal to that of the magnetic field. Although it would not be necessary to take relativistic effects into account for such fields and thermonuclear fuels as can be produced today, it is nevertheless interesting to investigate the development of the modification of relativistic quantities and their boundary values (for stronger fuels and fields). It was found in the course of calculations that the properties of relativistic detonation waves are similar to those of ordinary waves. Solutions of the

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The Propagation of Detonation Waves in the
Presence of a Magnetic Field

SOV/56-35-1-27/59

derived system of equations are given in the discontinuity
both for the relativistic and for the non-relativistic case
There are 7 figures and 3 references, 2 of which are Soviet

ASSOCIATION: Institut prikladnoy mekhaniki Akademii nauk Rumynskoy
narodnoy respubliki (Institute for Applied Mechanics, AS
Rumanian People's Republic) Institut atomnoy fiziki Akademii
nauk Rumynskoy narodnoy respubliki (Institute of Nuclear
Physics, AS Rumanian People's Republic)

SUBMITTED: February 13, 1958

Card 2/2

24 (3)

AUTHORS:

Larish, E., Shekhtman, I.

SOV/56-35-2-34/60

TITLE:

The Generation of Two Temperatures in an Ionized Gas Which is Placed in a Magnetic Field (Obrazovaniye dvukh temperatur v nakhodyashchetsya v magnitnom pole ionizovannom gaze)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 2 (8), pp 514-515 (USSR)

ABSTRACT:

The authors investigate an ionized gas the ionic temperature of which may be considered as given. A formula is given for the energy of cyclotron radiation. Cyclotron radiation has the frequency $\omega \sim eH/m_e$ and the gas is assumed to be

transparent in this frequency interval. This is rather a rigorous condition and a sufficiently high rarefaction of the gas or high values of the magnetic field strength or of the ionic temperature is necessary. If the electrons can radiate a noticeable part of their energy, electron temperature will be differ considerably from ionic temperature. A formula is given for the relaxation time of the electron component. The electron gas is assumed to have

Card 1/2

The Generation of Two Temperatures in an Ionized
Gas Which is Placed in a Magnetic Field

SOV/56-35-2-34/60

a Maxwell (Maksvell) distribution. The energy exchange between the electron gas and the ionic gas may be calculated according to a formula by Spitzer (Shpitser) (Ref 1) Finally, an expression is derived for the ratio $T_e/T_i = \theta$ of the electron and ionic temperatures. The difference between these 2 temperatures can be rather high There are 1 figure and 1 reference 0 of which is Soviet

ASSOCIATION. Institut prikladnoy mekhaniki, Bukharest (Institute of Applied Mechanics, Bucharest)
Institut atomnoy fiziki, Bukharest-Magurele (Institute of Atomic Physics, Bucharest-Magurele)

SUBMITTED. April 12, 1958

Card 2/2

1. SHANNON, E. A.
2. USSR(6.1)
4. Electromagnetism
7. Gyromagnetic resonance in nickel at 10 cm a wave length near the Curie-point.
Izv. AN USSR Ser. fiz. 16 no. 4. 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

I. 25793-66 EWT(m) IJP(c)

ACC NR: AP6016377

SOURCE CODE: UR/0089/65/019/006/0502/0505

AUTHOR: Auslender, V. L.; Blinov, G. A.; Budker, G. I.; Karliner, M. M.; Kisalay, A. V.; Livshits, A. A.; Mishnev, S. I.; Naumov, A. A.; Panasyuk, V. S.; Pestov, Yu. N.; Sidorov, V. A.; Sil'vestrov, G. I.; Skrinskiy, A. N.; Khabakhashev, A. G.; Shekhtman, I. A. 56 B

ORG: none

TITLE: Status report on the VEPP-2 positron-electron storage ring

SOURCE: Atomnaya energiya, v. 19, no. 6, 1965, 502-505

TOPIC TAGS: electron positron pair, electron interaction, synchrotron, electron scattering, luminescence, betatron/B-3M synchrotron

ABSTRACT: The VEPP-2 was designed for electron-positron interaction experiments at energies of 2 X 700 Mev. as reported in the "Proceedings of the International Conference on Accelerators", Dubna, 1963. Work accomplished in the two years following that conference includes the following: start-up of the synchrotron 19 injector, accumulation of large electron currents in the storage ring, study of instability related to the interaction of the beam with the resonator, and the accumulation of positrons. At present the VEPP-2 is being used to study the interaction of two beams and to measure the luminescence from the small-angle positron-electron scattering. An over-all schematic diagram of the VEPP-2 is shown, including its connection to a B-3M synchrotron. The latter operates in light-duty mode at 200 Mev, and its 100 ma output pulse is shorter than 20 nsec. Its energy scattering is less than 2% and pulse repetition frequency is about 3 cycles. The storage ring is a weakly focussing racetrack with four identical rectilinear segments 60 cm long. The equilibrium orbit radius is 150 cm and the aperture is 2

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L 25793-56

ACC NR: AP6016377

8 X 14 cm. One segment of the ring is the experimental working section; the opposite section is a resonator; the remaining two are used to inject electrons and positrons. The experiments made and the operation of the equipment are described in detail. It is noted with interest that when betatron oscillations are excited by individual inflector pulses, most of the initial oscillation amplitude decays in a time interval much shorter than the natural radiation decay time. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 001

Card 2/2 CC

L 05821-67 EWT(m) IJP(c) GD
ACC NR: AT6031468 SOURCE CODE: UR/0000/65/000/000/0001/0012

AUTHOR: Auslender, V. L.; Blinov, G. A.; Budker, G. I.; Karliner, M. M.;
Kiselev, A. V.; Livshits, A. A.; Mishnev, S. I.; Naumov, A. A.; Panasyuk, V. S.;
Pestov, Yu. P.; Sidorov, V. A.; Sil'vestrov, G. I.; Skrinskiy, A. N.; Khabakh-
pashev, A. G.; Shekhtman, I. A.

ORG: none

TITLE: Present state of research on the VEPP-2 electron-positron ring

SOURCE: AN SSSR, Sibirskoye otdeleniye. Institut yadernoy fiziki. Doklady, 1965.
Sostoyaniye rabot na pozitron-elektronnom nakopitele VEPP-2, 1-12

TOPIC TAGS: electron, positron, electron positron storage ring, electron beam
/B-3M synchrotron, VEPP-2 electron-positron, steradian

ABSTRACT: The VEPP-2 electron-positron storage ring was designed for
experiments on the interaction of positrons and electrons with an energy of up to
2 x 700 Mev. It is basically a special type of B-3M synchrotron, and is equipped
with an exterior injector, a high-vacuum storage track, a single thread system to
extract the electron beam from the accelerator and insert it into the storage ring.

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L 05821-67

ACC NR: AT6031468

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It has electron-optic channels and a converter to transform an electron beam into a positron beam. It now works at an energy of 200 Mev. Basic studies of the process of insertion into the storage ring were made at an energy of 100 Mev. A detailed description is given of the installation and storage of electrons and positrons. A system of spark chambers, comprising a 2×0.7 solid angle steradian close to the vertical direction, was prepared for experiments on the interaction of positrons and electrons. Efforts are now being made to increase the accumulation speed of positrons. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001/

kh

Card 2/2

L 07063-67 EWI(m) IJP(c)

ACC NR: AP6021621

(N)

SOURCE CODE: UR/0089/66/020/003/0210/0213

AUTHOR: Auslender, V. L.; Karliner, M. M.; Naumov, A. A.; Popov, S. G.; Skrinakiv, A. N.; Shekhtman, I. A.

ORG: none

TITLE: Phase instability of an intense electron beam in a storage ring

SOURCE: Atomnaya energiya, v. 20, no. 3, 1966, 210-213

TOPIC TAGS: storage ring, electron beam, automatic stabilization equipment, phase modulation, electron accelerator/ VEPP-2 storage ring

ABSTRACT: The authors consider radial-phase self-oscillations in storage rings at large beam currents. Conditions for the stability are obtained in the case of arbitrary frequency characteristics of the accelerating system. It is shown that stability conditions derived in earlier studies, stating that it is sufficient to tune the accelerating resonator to a frequency somewhat lower than the generator frequency in order to prevent self excitation of phase oscillations at arbitrarily large beam currents, are not borne out in practice, and that other factors must be taken into account in a more rigorous stability analysis. Allowance is also made for the interaction between the beam and the accelerating system and other elements of the vacuum chamber at harmonics of the electron-bunch revolution frequency. Some results of an experimental investigation of self excitation of phase oscillations in the storage rings of the Institute of Nuclear Physics of the Siberian Department of AN SSSR are

Card 1/2

UDC: 621.384.60

1 0700347

ACC NR: AF6021621

presented (VEPP-2). An example where the instability due to the eighteenth harmonic was eliminated is described. The authors thank G. I. Budker for continuous interest and B. A. Lazarenko, A. A. Litvinov, I. K. Sedlyarov, T. P. Starodubtseva, Ye. A. Pirushkin, and G. M. Tumaykin for help with the experiments. Orig. art. has: 5 figures and 14 formulas. 7

SUB CODE: 20/ SUBM DATE: 22Nov65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 LC

SHEKHTMAN		PROCESSES AND PROPERTIES INDEX	
SA		B 64	
<p>CALCULATION OF THE LEAKAGE OF THE FRONT PARTS OF WINDINGS. I. V. Shekhtman. Elektrichestvo (No. 3) 24-9 (March, 1950) In Russian.</p> <p>A New method of calculating the leakage reactance of windings, in particular of their front parts, based on the determination of self- and mutual inductances of linear winding parts. The influence of the core is considered by applying the method of electric images which is simpler and more accurate than the usual methods of approximation.</p> <p>B. F. Kraus</p>			
ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION		ELECTRICITY	
12-1180 12-1180		12-1180 12-1180	

BERGSHTEYN, Solomon Grigor'yevich; SHEKHTMAN, I.V., red.

[Pulse-type regulation of the angular velocity of
electric motors] Impul'snoe upravlenie skorost'iu
vrashcheniia elektrodvigatelei. Moskva, Izd-vo
"Energia," 1964. 80 p. (Biblioteka po avtomatike,
no.101) (MIRA 17:6)

L 27260-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/EWP(l)/EWP(v)/EWP(t) IJP(c) JD/rh
 ACC NR: AP6009506 SOURCE CODE: UR/0413/66/000/005/0010/0010

AUTHORS: Radetskiy, V. S.; Shekhtman, I. Ye.

ORG: none

TITLE: Drawing die. Class 7, No. 179267 [announced by the Odessa Factory of Food Machinery Construction (Odesskiy zavod prodovol'stvennogo mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 10

TOPIC TAGS: metal drawing, metal forming press, metal stamping, die

ABSTRACT: This Author Certificate presents a drawing die assembly for large parts, mounted on a double-acting press and containing a drawing die, die, push rod, clamping plate, and ejector (see Fig. 1). To permit drawing of parts with internal dimensions larger than the dimensions of the inner slide of the press, the drawing die is stepped and is freely placed on the shaft which has a stepped rod for retracting the drawing die. The clamping plate is also stepped and is rigidly connected to the outer slider of the press.

Card 1/2

UDC: 621.983.3.07

L 27260-66

ACC NR: AP6009506

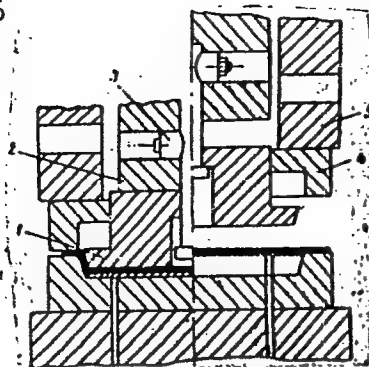


Fig. 1. 1 - drawing die;
2 - plunger; 3 - retracting
rod; 4 - clamping plate;
5 - outer slider.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 24Feb64

Card 2/2 CC

CHUKHAR'KO, Z.; SHEKHTMAN, Kh.

Make effective use of machinery in grain procurement stations.
Muk.-elev.prom. 22 no.5:3-5 My '56. (MIRA 9:9)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i pro-
duktoy ego pererabotki.
(Grain elevators) (Grain-handling machinery)

CHUKHAR'KO, Z.; KOPTEV, K.; SHEKHTMAN, Kh.; SHEYER, G.; BELYAKOVA, N.

For an effective network of permanent grain procurement stations.
Muk.-elev.prom.23 no.8:18-21 Ag '57. (MIRA 10:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov
yego pererabotki.

(Grain trade)

CHUKHAR'KO, Z.; SHEKHTMAN, Kh.; RADOV, A.

Introducing a new system of management at the Orenburg Grain Receiving Station No.2. Muk-elev.prom. 62 no.1:12-14 Ja '59. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

(Orenburg--Grain elevators)

RADOV, A.; ~~SHEKH~~HTMAN, Kh.

Determining norms for the number of loading personnel in
warehouses of grain receiving stations. Biul.nauch.inform:
trud i zar.plata 3 no.7:29-33 '60. (MIRA 13:8)
(Grain--Storage)

SHENKHTMAN, Kh.

Research on work norms in the grain product industry. Sots.trud
5 no.8:149 Ag '60. (MIRA 13:11)
(Grain trade--Production standards)

PLATONOV, A.; CHUKHAR'KO, Z., kand.ekon.nauk; SHEKHTMAN, Kh., kand.ekon.nauk

Efficient distribution of grain procurement stations. Muk.-elev.prom.
26 no.1:8-9 Ja '60. (MIRA 13:6)

1. Gosudarstvennyy komitet Soveta Ministrov SSSR po khleboproduktam
(for Platonov). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut
zerna (for Chukhar'ko, Shekhtman).
(Grain elevators)

SHEKHTMAN, Kh., kand.ekonomicheskikh nauk; POPOV, G.

Economic accountability at the Biysk Grain Procurement
Station. Muk.-elev.prom. 26 no.2:17-18 # '60.
(MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i
produktov yego pererabotki. Direktor Biyskogo khlebopriyemnogo
punkta (for Popov).
(Biysk--Grain elevators--Accounting)

SHEKHTMAN, Khaim Yankelevich, kand. ekonom. nauk; KALACHIKHIN, I.F.,
red.; GOLUBKOVA, L.A., tekhn. red.

[How to reduce the cost of grain processing] Kak snizit' zatraty
na obrabotku zerna. Moskva, Zagotizdat, 1961. 48 p.
(MIRA 14:11)

(Grain elevators)

RADOV, A.; CHUKHAR'KO, Z.; SHEKHTMAN, Kh.

Simplifying the system of management in grain receiving stations.

Biul. nauch. inform.: trud i zar. plata 4 no.9:18-22 '61.

(MIRA 15:1)

(Grain--Storage)

CHUKHAR'KO, Z.; SHEKHITMAN, M.; RADOV, A.; NAKAZNOY, I., starshiy inzh.;
AKIF'YEV, V. (Gorkovskaya obl.)

Improve the organization of work in different sections of the
grain receiving enterprises. Muk.-elev. prom. 27 no.9:11-16
S '61. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i
produktov yego pererabotki. 2. Normativno-issledovatel'skaya
stantsiya Ministerstva zagotovok Kazakhskoy SSR (for Nakaznoy).
(Granaries)
(Grain elevators)

SHEKHTMAN, Kh.; USHAKOV, T.

Planning and reducing expenditures for motortruck transportation of grain. Muk.-elev. prom. 29 no.9:11-12 S '63.

(MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

CHUKHAR'KO, Z.; USHAKOV, T.; SHEKHITMAN, Kh.

Using linear programming in planning the conveying of grain loads.
Muk.-elev. prom. 29 no.12:14-15 D '63. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i
produktov yego pererabotki.

SHEKHTMAN, Kh.Ya., kand.ekonom.nauk; RADOV, A.G., nauchnyy sotrudnik

Work of the production sections of grain receiving stations. Soob.
1 ref. VNIIZ no.4:1-3 '61. (MIRA 16:5)
(Grain handling)

ACC NR: AP6033491 SOURCE CODE: UR/0413/66/000/018/0111/0112

INVENTOR: Gershteyn, G.M.; Mudel'man, I. Ye.; Promin, V. P.; Shekht-
man, L. A.

ORG: none

TITLE: Method of processing gravimetric survey results. Class 42, No.
186155

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 111-112

TOPIC TAGS: gravimetric survey, gravity isoanomaly, dielectric sheet,
potentiometer, gravity parameter, GRAVIMETRY

ABSTRACT: A method is proposed for processing gravimetric survey data based on analysis of isoanomaly gravity maps. The isoanomaly map is put on a dielectric sheet, the interspaces between isoanomalies are filled with conductors, and a potentiometer adapted for each interspace is attached. A point-shaped charge is moved above the dielectric sheet which measures the current. Parameters of the gravity field are determined from the intensity of the induced current. This method permits a continuous distribution of the gravity field, higher accuracy, and a shortened processing to be obtained. Orig. art. has: 1 figure.

Card 1/2

UTC: 550.831

ACC NR: AP6033491

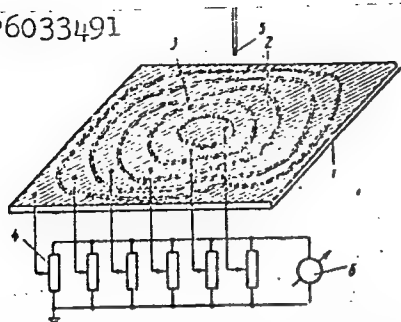


Fig. 1. Set-up for processing gravimetric survey data.
1 - dielectric sheet; 2 - conductor; 3 - gravity isoanomaly
4 - potentiometer; 5 - point-shaped charge; 6 - indicator

SUB CODE: 08/ SUBM DATE: 14Jun65/

Card 2/2 afs

ACCT. NO. AP6018722

SOURCE CODE: U /0057/66/036/006/0997/1002

AUTHOR: Pronin, V.P.; Shekhtman, L.A.

ORG: Saratov State University im. N.G.Chernyshevskiy (Saratovskiy gosudarstvennyy universitet)

TITLE: Determination of the higher derivatives of harmonic functions by the induced current method

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 6, 1966, 997-1002

TOPIC TAGS: special purpose computer, analog computer, harmonic function, partial derivative, Laplace equation, boundary value problem

ABSTRACT: This paper is concerned with the induced-current method of G.M.Gershteyn (Izv. VUZov. Radiofizika, 2, 4, 602, 1959) for the analog computation of harmonic functions satisfying certain kinds of boundary conditions. In that technique the boundaries are represented by grounded metallic electrodes, and the values at different points of the corresponding solution to Laplace's equation are derived from measurements of the currents induced in those electrodes by an appropriately moving test charge. In the present paper the authors discuss methods for directly determining the gradients and higher derivatives of the harmonic function from the induced currents. Three types of problems are discussed: a moving point charge, a vibrating charge, and a

Card 4/4

UDC: 538.311

dipole that does not oscillate. Formulas are derived for the induced currents in the three cases, and means are indicated for obtaining with their aid the desired derivatives. In the case of the vibrating charge the derivatives of successive orders depend mainly on the Fourier components of the corresponding orders of the induced currents, and these can be determined directly with the aid of appropriately tuned narrow-band amplifiers. Cross derivatives can be determined from the currents induced by a vibrating charge moving in the plane perpendicular to its vibration axis, as well as from the currents induced by a moving dipole. The authors thank G.M. Gershteyn for valuable advice and constant interest. Orig. art. has: 19 formulas and 2 figures.

SUB CODE: 09,12/

SUBM DATE: 17Jul65/

ORIG. REF: 002/

Card 2/2

М. Я. Цетлов,
Л. Я. Шестина

О влиянии одного класса элементов на ферритотранзисторные усилители.

12. СЕКЦИЯ ФЕРРИТОВЫХ УСТРОЙСТВ СВЧ

Руководитель А. Я. Милославский

11 июня

(с 10 до 16 часов)

Специальное заседание с целью обсуждения

В. И. Жуков,
М. С. Мясоедов

Некоторые вопросы теории параметрических усилителей

В. П. Тихоновский

К теории ферритового усилителя

В. П. Тихоновский,
Ю. Т. Давыдов,
В. В. Коротаев

Экспериментальное исследование ферритового усилителя

60

А. Я. Милославский,
Н. Я. Шестина

Некоторые результаты исследования ферритовых усилителей

А. С. Титов

У теории параметрического усилителя с однополосным сигналом

11 июня

(с 18 до 22 часов)

А. А. Пестельков,
Григорьев

Классификация нелинейных характеристик феррита в поле одной волны

А. Я. Милославский,
В. В. Антонов

Свойства ферритовых элементов частоты ферритов

А. Я. Милославский,
А. К. Сидоров

О ферритовых элементах произвольного типа

А. Я. Милославский,
Н. Г. Тихоновский

Применение ферритов для управления частотой микроволновых колебаний

60

report submitted for the Centennial Meeting of the Scientific Technological Society of

Radio Engineering and Electrical Communications in A. S. Popov (VSEIN), Moscow,

8-12 June, 1959

9(5) PHASE 1. DATA EXPLANATION SOV/71/76

Problemy kibernetiki, vyp. 2 (Problems of Cybernetics, No. 2)
Moscow, Fizmatgiz, 1953. 323 p. Errata slip inserted. 19,000
copies printed.

Ed.: A. A. Lyapunov; Compilers-Editors: O. B. Lupanov,
B. Yu. Fil'chak, S. V. Yablonskiy, and Yu. I. Yanov; Ede.:
A. A. Monopolynkin, and M. L. Smolyanaki; Tech. Ed.:
S. N. Aukhsanov.

PURPOSE: The purpose of this collection of articles is to organize
scientific papers on cybernetics and to unite the efforts and
interests of Soviet scientists working in this field.

COVERAGE: This is the second volume of "Problemy kibernetiki",
dealing with problems of biology, mathematics and engineering
as they relate to cybernetics. The first volume, which appeared
in 1953, considered problems of programming, machine translation
and computer design. Future volumes propose to include a still
greater number of subjects related to cybernetics. The editors
list 5 recent Soviet books (including 2 translations) dealing
with cybernetics. They thank the following persons for their
help in preparing the book for publication: V. V. Yakubovskaya,
T. L. Gavrilova, A. A. Kuchnik, B. I. Kozlov, M. L. Teelin
and V. S. Shtrikman. References follow each article.

Val'skiy, R. E. (Leningrad). On the Problem of Multi-
Applications for Raising to a Given Power. Least Number of Multi-
The author presents his method of computation. There
are no references. 73

PART II. THEORY OF CONTROL SYSTEMS

Yablonskiy, S. V. (Moscow). On Algorithmic Difficulties
Encountered in the Synthesis of Minimum Switching Circuits 75
The author attempts to explain algorithmic difficulties
arising when solving problems of cybernetics which allow
for a trivial solution on the basis of the classical defini-
tion of the algorithm. However, such a solution is impractic-
able because of its cumbersome nature. The author suggests two
variations for the solution of the problem: the construction of
renouncing the minimum of circuits. The author concludes in
renouncing investigation of algorithmic functions of the algebra
of logic. There are 27 references: 21 Soviet (3 translations),
5 English and 1 French.

Krichevskiy, R. Ye. (Moscow). On the Realization of Functions
By Superposition 123
The article consists of three parts. In the first part
the author presents fundamental definitions: the super-
position of elementary objects, realization, and the im-
plicity index. In the second part, the fundamental result
(the value of L_0), which is the upper bound of the number
of the simplest constructions expressing functions of L_0 , is
obtained if the realizing constructions are superpositions of
elementary objects. In part 3, a study is made of the con-
sequences of the fundamental theorem pertaining to multi-value
logic and the theory of networks. There are 13 references:
6 Soviet, 5 English and 2 German.

Teelin, M. L. and L. M. Shadrin (Moscow). Two-cycle Ferro-
transistor Circuits and Algebraic Methods of Their Synthesis 139
The authors aim at developing a regular algebraic method of
synthesis of two-cycle ferro-transistor circuits, which re-
cently have found rapidly increasing application in analog and
digital computers and automatic control systems. Mathematical
analysis is based on algebra of logic. The authors thank the
following persons for their help: Professor A. A. Kuchnik,
M. Ya. Matyushin and Yu. B. Pilyuchko. References: 11 Soviet,
11 English and 1 German.

PART III. PROGRAMMING

Glushkov, V. M. (Kiev). On a Method of Automating Programming 181
The author briefly reviews existing methods of automatic pro-
gramming programs, which attempt to make the process of pro-
gramming as automatic as that of computing. This can be done
by creating a "library" of programming programs and adapting
a method of "operational programming." There are no references.

Slonim, A. A. (Kiev). Principles of Developing a Specialized
Automatic Programming System 185
The method of automatic programming suggested by V. M. Glushkov
(see preceding article) is being developed at the Computing
Center of the Academy of Sciences, USSR. It consists in the crea-
tion of a library of specialized programs and the adaptation of
programs for solving a given problem. The author thanks the
following persons for their help: Professor A. A. Kuchnik,
M. Ya. Matyushin and Yu. B. Pilyuchko. References: 11 Soviet,
11 English and 1 German.

PHASE I BOOK EXPLOITATION

SOV/5027

Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya

Voprosy rascheta i konstruirovaniya elektronnykh vychislitel'nykh mashin, vyp. 1,
(Problems of the Calculation and Design of Electronic Computers, v. 1) Mos-
cow, Mashgiz, 1960. 194 p. Errata slip inserted. 8,000 copies printed.

Ed.: N.Ye. Kobrinskiy, Doctor of Technical Sciences; Ed. of Publishing House:
A.G. Akimova; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Machine
Building and Instrument Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: This collection of articles is intended for scientists and technicians
working in computing-machine building and related fields.

COVERAGE: This collection of articles presents the results of investigations
related to the design and development of electronic computers. It examines
the realization of some general and special algorithms by means of digital
and analog computers, investigates errors in the realization of functional
relationships in electronic analogs, and reviews problems of computing and
designing the external outfits and arrangement of digital computers based
on various principles of operation. Methods of computation and the basic
characteristics of stabilized supply sources for digital and analog computers,

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Problems of the Calculation (Cont.)

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methods of computing standard circuits, and problems related to their reliability are examined. No personalities are mentioned. References accompany some of the articles.

TABLE OF CONTENTS:

PART I. GENERAL PROBLEMS OF COMPUTER DESIGNING

Alferova, Z.V. Principles of Designing Logical Circuits of Information-Processing Programs for Calculations	3
Neslukhovskiy, K.S. [Possibilities of] Using Electronic Computers for the Mass Processing of Statistical Data	24
Shekhtman, L.M. New Methods of Division With Digital Computers	44
Belova, A.I., I.M. Vitenberg, E.A. Gluzberg, and A.I. Kozlova. Additional Possibilities of Mathematical Electrical Analogs	57
Kopay-Gora, P.N. Errors of Variable Coefficient Units With Step-by-Step Approximation	75

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PHASE I BOOK EVALUATION

SOV/5033

Academy of Sciences USSR

Primeneniye logiki v nauke i tekhnike (Application of Logic in Science and Technology) [Moscow] Izd-vo AN SSSR [1960] 357 p. Errata slip inserted. 10,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Editorial Board: Resp. Ed.: I. V. Tavanets, E. Ya. Kol'man, G. M. Povarov and S. A. Yanovskaya; Ed. of Publishing House: R. Yu. Rosenbergs; Tech. Ed.: S. T. Mirkovich.

PURPOSE: This book is intended for scientists interested in mathematical and symbolic logic.

COVERAGE: The book is a collection of 16 articles in which the authors discuss problems of mathematical logic and its application to computers, linguistics, zoology, methodology and various fields of technology. No personalities are mentioned. References follow all but one article.

Barinov, V. V. Significance of the Axiomatic Method in the Study of Trends in Changes of Living Systems 173

Zinov'ev, A. A. Deductive Method in Investigating the Propositions of Relationalship 215

Zinov'ev, A. A. Generality Problem of Propositions of Relationalship 243

Zinov'ev, A. A. One Variant of the Definition Theory 251

Povarov, G. M. Group Invariance of Boolean Functions 263

Shestakova, Y. I. Double Arithmetic Interpretation of the Three-Valued Calculation of the Proposition Used in Simulating This Calculation by Means of a Relay-Switching Circuit 341

Tastlin, M. I. and L. M. Shekhtman. Some Problems of Physical Realization of Systems Determining Logical Functions 377

Maystrova, D. T. Application of Many-Valued Logics in the Theory of Relay Systems 394

Povarov, G. M. Inductive and Deductive Aspects of Logic Connected with Logical Problems in Technology 415

Kedrov, B. M. "Phase Method" in Formal Logic 421

Biryukov, B. V. Sense Theory of Gottlob Frege 502

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SHEKHTMAN, L.M.

New methods of performing division operations on electronic digital
computers. Vop. rasch. i konstr. elektron. vych. mash. no.1:44-
56 '60. (MIRA 14:1)

(Electronic digital computers)

TSETLIN, M.L.; SHEKHETMAN, L.M. (Moskva)

Push-pull circuits using ferrites and transistors with
nonperiodic counting. Probl.kib. no.3:89-94 '60.

(MIRA 13:7)

(Information theory)

SHEKHTMAN, L. M.

Cand Tech Sci - (diss) "Several problems of the construction of specialized electronic computing machines using ferrotransistor elements." Moscow, 1961. 14 pp; (Inst of Precision Mechanics and Computer Techniques of the Academy of Sciences USSR); 120 copies; price not given; (KL, 6-61 sup, 228)

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C111/C222

AUTHORS: Tsetlin, M.L., and
Shekhtman, L.M.

TITLE: On some questions of the physical realization of apparata
which carry out logical functions

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1961, 41,
abstract 10 A 290. ("Primeneniye logiki v nauke i tekhn." M.,
AN SSSR, 1960, 377-393)

TEXT: The authors consider some peculiarities of the realization of
logical nets being connected with the consideration of the finite re-
tardation time of the signals. Because of the scattering of the re-
tardations of signals at the inputs of the network there appear intervals
of incorrect dependences of the states of the output buses on the states
of the input buses. In the interval of the incorrect dependence the out-
put signal may cause an incorrect switching of the following nets. In
order to avoid this, a part of the output signal must be separated so that
the duration of the incorrect dependence becomes too short for the
switching of the following nets. Here the duration of the correct output

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On some questions of the physical ...

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C111/C222

signal is smaller than the maximal duration of the input signal, therefore sometimes an enlargement of the duration of the output signal is necessary (formation with respect to the duration). It is essential that the quickness of the nets is not bounded by the maximal retardation of the input signal but by the scattering of the retardations over the inputs. X

[Abstracter's note : Complete translation.]

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